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| 10/816,575 | 04/01/2004 | Gregory E. Borchers | SLA1461 | 1234 |
| 52894 | 7590 | 01/25/2010 | EXAMINER | |
| KRIEGER INTELLECTUAL PROPERTY, INC. PO Box 872438 Vancouver, WA 98687-2438 | | | WANG, JUE S | |
| ART UNIT | PAPER NUMBER | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

KRIEGERIP@COMCAST.NET

| | | |
|------------------------------|--------------------------------------|---|
| Office Action Summary | Application No. 10/816,575 | Applicant(s) BORCHERS, GREGORY E. |
| | Examiner JUE WANG | Art Unit 2193 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on **24 November 2009**.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) **17-26** is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) **17-26** is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
- 4) Interview Summary (PTO-413)
- 5) Notice of Informal Patent Application
- 6) Other: _____

Paper No(s)/Mail Date _____

DETAILED ACTION

1. Claims 17-26 have been examined.
2. Claims 1-16 were cancelled in amendment dated 3/7/2008.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 17-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 17 recites the limitations “wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure by executing code that resides solely on said web-based administration utility and without executing code on said firmware device”, “erasing firmware, including said firmware configuration data, from said firmware device, by executing code that resides solely on said web-based administration utility and without executing code on said firmware device”, “loading a new firmware structure from said download computing device to said firmware device over said direct serial connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device”, and “loading said firmware configuration data from said web server to said firmware device over said network

connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device". Claim 22 recites similar limitations. Applicant did not point out locations in the specification where support can be found for these limitations and Examiner is unable to locate support for these limitations. The most relevant passage of the specification identified by the Examiner states "Configuration upload may be accomplished using Simple Network Management Protocol (SNMP) methods, Hypertext Transfer Protocol (HTTP) methods or by other methods. The firmware update is then initiated at the upgradeable device 12 or at the download computing device 14. ... New configuration data installation may be accomplished using SNMP, HTTP, or other protocols to restore settings to the upgradeable device 12."(page 5, paragraph [0014] of the specification). Examiner can not locate any disclosure in the specification that explicitly states which code is executed to perform the tasks of uploading the firmware configuration data, erasing firmware, loading the firmware, and loading the firmware configuration. Applicant is requested to point out sections of the specification that provides support for these limitations.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 17-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following claim language is indefinite and not clear:

i. Claim 17 recites the limitations “wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure by executing code that resides solely on said web-based administration utility and without executing code on said firmware device”, “erasing firmware, including said firmware configuration data, from said firmware device, by executing code that resides solely on said web-based administration utility and without executing code on said firmware device”, “loading a new firmware structure from said download computing device to said firmware device over said direct serial connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device”, and “loading said firmware configuration data from said web server to said firmware device over said network connection, by executing code that resides solely on said web-based administration utility and said download computing device and without executing code on said firmware device”. Claim 22 recites similar limitations.

These limitations are not clearly understood because it is not clear how the tasks of uploading firmware configuration data, erasing firmware, loading firmware, and loading firmware configuration data can be accomplished by executing only code residing on a web-based administration utility on a web server and a download computing device without executing code on said firmware device.

Examiner believes that in order to interface with the firmware device and control

the firmware device, at least some code must be executing on the firmware device because the hardware of the firmware device (i.e., communication interface, memory) is controlled by the processor of the firmware device and any code that accesses the hardware of the firmware device must be executed by the processor of the firmware device. For compact prosecution of the claims, the office has interpreted has the limitations of the uploading, erasing, loading steps as being initiated and managed by the web-based administration utility on a web server and the download computing device that does not require the firmware device to execute code explicitly developed to implement these functionalities, but nevertheless still requires executing some code on the firmware device to communicate with and execute commands from the server and download computing device.

Appropriate corrections are required.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 17, 19, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over McIntyre (US 2003/0063305 A1), in view of McGowan et al. (US 2005/0028165 A1, hereinafter McGowan), further in view of Grieve et al. (US 2003/0149756 A1, hereinafter Grieve), further in view of Yuh et al. (US 7,093,003 B2, hereinafter Yuh).

9. As per claim 17, McIntyre teaches the invention as claimed, including a method for preserving configuration data during firmware modification (see [0009], [0037]), said method comprising:

- a) establishing a direct serial connection between a firmware device and a download computing device (see [0022], [0023]);
- c) uploading firmware configuration data, from an existing firmware structure in said firmware device to the download computing device (see [0037]);
- d) storing said firmware configuration data on the download computing device (see [0037]);
- e) erasing firmware, including said firmware configuration data, from said firmware device (see [0015]);
- f) loading a new firmware structure to said firmware device (see [0037]);
- g) loading said firmware configuration data from the download computing device to said firmware device over said serial connection (see [0037]).

McIntyre does not teach a web-based data management utility residing on a server, a network connection connecting said firmware device, said download computing device, and said web-based management utility. Guess also does not teach uploading and storing firmware configuration data over the network connection, from an existing firmware structure in said

firmware device to the web server using web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure, and loading the firmware configuration data from the web server to the firmware device over the network connection.

McGowan teaches a web-based data management utility residing on a server (see Fig 1, Fig 2, [0029], [0031]), a network connection connecting a computing device and said web-based management utility (see Fig 1, Fig 2, [0025], [0029], [0031]) and uploading configuration data from the computing device to the web server using the web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure, and loading the configuration data from the web server to the computing device (see [0007], [0029], [0040], [0041]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of McIntyre to contain a web-based data management utility residing on a server, a network connection connecting said firmware device, and said web-based management utility, and uploading configuration data from the firmware device to the web server using the web-based administration utility, wherein said web-based administration utility performs said uploading by pulling data from said existing firmware structure without loading any software onto said firmware device, and loading the configuration data from the web server to the firmware device as taught by McGowan because the server system allows a copy of the latest configuration of the enterprise application to be maintained so that the user's settings can be restored (see [0007] and [0040] of McGowan).

McIntyre and McGowan do not explicitly teach that the steps uploading the firmware configuration and erasing the firmware are initiated and managed by executing code on said web-based administration utility without any specialized code on the firmware device.

Grieve teaches a configuration management system (see abstract), that uploads device configuration and installs firmware using a web-based administration utility, wherein the upload and installation operations are initiated and managed by executing code on said web-based administration utility without any specialized code on the firmware device (see [0028]-[0030], [0033], [0149]).

It would have been obvious to one of ordinary skill in the skill at the time of the invention to have modified McIntyre and McGowan such that the uploading and erasing are initiated and managed by executing code on said web-based administration utility as taught by Grieve because it is well known that firmware devices have limited amount of resources and therefore it is desirable to use the web server for management functionalities.

McIntyre, McGowan, and Grieve do not explicitly teach that a network connection is established between the downloading device, a web-based device administration utility on a web server and a firmware device and that the loading is performed by executing code that resides on a web-based administration utility and a download computing device.

Yuh teaches establishing a network connection between a downloading device, a web server and a firmware device to upload information from the firmware device to the server (see Fig 2, column 4, line 63 – column 5, line 12), where data is loaded to the firmware device from the web server by executing code that resides on a web-based administration utility and a download computing device (see column 8, lines 8-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified McIntyre such that a network connection is established between the downloading device of McIntyre and the web server of McGowan to store the firmware configuration data from the firmware device of McIntyre as similar to the communication scheme taught by Yuh such that a PC can be used to initiate communication with a server (see column 5, lines 1-6 of Yuh) when the firmware device is not capable of establishing direct communication with a server.

10. As per claim 19, McIntyre does not teach modifying the configuration data with the web server prior to said loading said configuration data.

McGowan teaches that the web-based administration utility on the web server performs modification of configuration data prior to loading said configuration data (i.e., the server will reconcile the new updated properties file with the reconciled properties files in server database prior to push down, see [0041]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of McIntyre to use the web-based administration utility to perform the modification as taught by McGowan to allow the device receiving the configuration file to contain an up-to-date, cumulative configuration of the application (see [0041] of McGowan).

11. As per claims 22 and 24, these are system claims with limitations that are substantially similar to claims 17 and 19. Therefore, they are rejected using the same reasons as claims 17 and 19.

12. Claims 18, 20, 21, 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McIntyre (US 2003/0063305 A1), in view of McGowan et al. (US 2005/0028165 A1, hereinafter McGowan), further in view of Grieve et al. (US 2003/0149756 A1, hereinafter Grieve), further in view of Yuh et al. (US 7,093,003 B2, hereinafter Yuh), as applied to claims 17 and 22 above, further in view of Woodward et al. (US 2002/0104080 A1, hereinafter Woodward).

13. As per claim 18, McIntyre, McGowan, Grieve, and Yuh do not teach converting said configuration data to a format compatible with said new firmware structure using said web-based device administration utility on said web server prior to loading said firmware configuration data.

Woodward teaches that the web-based administration utility on the web server performs conversion of configuration data prior to loading the configuration data (see [0052], [0053]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of Guess to use the web-based administration utility to perform the conversion as taught by Woodward because the server system can be periodically updated to accommodate new and different systems, and formats (see [0013] of Woodward).

14. As per claim 20, McIntyre, McGowan, and Yuh do not teach querying network elements to ascertain additional configuration data needed by said new firmware structure.

Woodward teaches computer devices querying network elements to ascertain additional configuration data needed by new applications on the computer device (see [0012], [0053], [0235]-[0237]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of McIntyre, McGowan, and Yuh to query network elements to ascertain additional configuration data needed by said new firmware structure as taught by Woodward because the server system allows the configuration data to be updated to reflect changes in software or to work with new and different systems, platforms, formats and programs (see [0012], [0013] of Woodward).

15. As per claim 21, McIntyre does not teach combining said additional configuration data with said configuration data using said web-based device administration utility on said web server prior to said loading said firmware configuration data.

McGowan teaches that the web-based device administration utility on the web server combines additional configuration data with old configuration data prior to loading the configuration data (i.e., the server will reconcile the new updated properties file with the reconciled properties files in server database prior to push down, see [0041]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of McIntyre to combine said additional configuration data with said configuration data using said web-based device administration utility on said web server prior to said loading said firmware configuration data as taught by McGowan to allow the device

receiving the configuration file to contain an up-to-date, cumulative configuration of the application (see [0041] of McGowan).

16. As per claims 23, 25, and 26, these are system claims with limitations that are substantially similar to claims 18, 20, and 21. Therefore, they are rejected using the same reasons as claims 18, 20, and 21.

Response to Arguments

17. Rejection of claims under §103(a):

18. As per independent claims 17 and 22, Applicant argued that McGowan, Woodward, and Yuh do not teach methods that relate to firmware changes. Applicant argued that the cited references do not teach embodiments of the present invention, as described in the present claims, update the firmware of a computer device without using memory on the device and without loading a specialized program onto the firmware device. In response, Examiner submits that McGowan, Woodward, and Yuh are not relied upon to teach firmware configurations. Rather, McIntyre is relied upon to teach preserving configuration data during firmware upgrade (see [0009], [0037]). McGowan and Woodward are cited to teach the use of a web server to store the configuration settings, and Yuh is cited that the download and upload configuration of the firmware device, download computing device, and web server as recited is well known. The method of McIntyre is properly modifiable by McGowan and Woodward's server because McIntyre teaches first storing the firmware configuration to a PC (see [0026], [0037]), and a PC would have the capability of communicating with a web server as taught in McGowan and

Woodward to store the configuration settings on the web server. In addition, the proposed combination would not required using memory on the device or loading a specialized program onto the firmware device because McIntyre teaches that the printer control program responsible for preserving the printer control settings is resident on the computer (see [0021], [0037]) and the printer control settings are saved to the computer (see [0026], [0037]).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Parry et al. (US 2003/0217357 A1) is cited to teach a method of managing firmware on network deices.

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jue S. Wang whose telephone number is (571) 270-1655. The examiner can normally be reached on M-Th 7:30 am - 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193

Jue Wang
Examiner
Art Unit 2193